

APPENDIX D

RECOMMENDED PROCEDURE FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE INSTALLATION

(This appendix is informative and is not part of the *code*. This appendix is an excerpt from the 2009 *International Fuel Gas Code*, coordinated with the section numbering of the *International Residential Code*.)

The following procedure is intended as a guide to aid in determining that an *appliance* is properly installed and is in a safe condition for continuing use.

This procedure is intended for *central furnace* and boiler installations and may not be applicable to all installations.

- (a) This procedure should be performed prior to any attempt at modification of the *appliance* or of the installation.
- (b) If it is determined that there is a condition that could result in unsafe operation, shut off the *appliance* and advise the owner of the unsafe condition.

The following steps should be followed in making the safety inspection:

1. Conduct a check for gas leakage. (See Section G2417.6.)
2. Visually inspect the *venting system* for proper size and horizontal pitch and determine there is no blockage or restriction, leakage, corrosion and other deficiencies that could cause an unsafe condition.
3. Shut off all gas to the *appliance* and shut off any other fuel-gas-burning *appliance* within the same room. Use the shut-off valve in the supply line to each *appliance*.
4. Inspect *burners* and crossovers for blockage and corrosion.
5. **Furnace installations:** Inspect the heat exchanger for cracks, openings or excessive corrosion.
6. **Boiler installations:** Inspect for evidence of water or *combustion product* leaks.
7. Close all building doors and windows and all doors between the space in which the *appliance* is located and other spaces of the building that can be closed. Turn on any *clothes dryers*. Turn on any exhaust fans, such as range hoods and bathroom exhausts, so they will operate at maximum speed. Do not operate a summer exhaust fan. Close *fireplace dampers*. If, after completing Steps 8 through 13, it is believed sufficient *combustion air* is not available, refer to Section G2407 of this *code*.
8. Place the *appliance* being inspected in operation. Follow the lighting instructions. Adjust the *thermostat* so that the *appliance* will operate continuously.
9. Determine that the *pilot*, where provided, is burning properly and that the *main burner* ignition is satisfactory by interrupting and reestablishing the electrical supply to the *appliance* in any convenient manner. If the *appliance* is equipped with a continuous *pilot*, test

all *pilot* safety devices to determine if they are operating properly by extinguishing the *pilot* when the *main burner* is off and determining, after 3 minutes, that the *main burner* gas does not flow upon a call for heat. If the *appliance* is not provided with a *pilot*, test for proper operation of the ignition system in accordance with the *appliance* manufacturer's lighting and operating instructions.

10. Visually determine that the *main burner* gas is burning properly (i.e., no floating, lifting or flashback). Adjust the primary air shutters as required.

If the *appliance* is equipped with high and low flame controlling or flame modulation, check for proper *main burner* operation at low flame.

11. Test for spillage at the *draft hood relief opening* after 5 minutes of *main burner* operation. Use the flame of a match or candle or smoke.
12. Turn on all other fuel-gas-burning *appliances* within the same room so they will operate at their full inputs. Follow lighting instructions for each *appliance*.
13. Repeat Steps 10 and 11 on the *appliance* being inspected.
14. Return doors, windows, exhaust fans, *fireplace dampers* and any other fuel-gas-burning *appliance* to their previous conditions of use.
15. **Furnace installations:** Check both the limit *control* and the fan *control* for proper operation. Limit *control* operation can be checked by blocking the circulating air inlet or temporarily disconnecting the electrical supply to the blower motor and determining that the limit *control* acts to shut off the *main burner* gas.
16. **Boiler installations:** Verify that the water pumps are in operating condition. Test low water cutoffs, automatic feed *controls*, pressure and temperature limit *controls*, and *relief valves* in accordance with the manufacturer's recommendations to determine that they are in operating condition.

